Ridging against blight disease in Pigeon Peas

Recognize the problem

Stem blight in pigeon peas is a fungal disease, that is also called *Phytophthora* blight, stem rot or 'mnyauko wa mbaazi'. Yellow spots appear on the leaves of affected plants. The diseased bark turns yellow to brown and finally dies starting from the base of plants. Upon death, the bark remains attached to the stem. The problem progresses to the branches which wilt and will also die. The pigeon pea pods die before they mature.

Dying bark on the stem of a pigeon pea plant. (Photo by O. A. Ndomba taken from Babati, Tanzania)

Background

The fungus is nearly impossible to manage with chemical fungicides, because it comes from the soil. It prefers to attack lower parts of the stem when the soil is damp and cool. The disease is prevalent in pigeon peas planted on flat land where flooding is more likely. In heavy non-draining soils, the disease is common. Planting pigeon peas on ridges forces the root system to remain on drained soils which discourages the multiplication of the fungus. Planting on ridges also allows any excess water to drain away from the field.

Ridged field. (Photo by Bob Embleton, via Wikimedia commons)

Management

- Choose a field with no previous record of blight disease
- Prepare the field so that you can sow ahead of the rains (the rainy season is November and December in Manyara and Arusha regions)
- Sow pigeon peas into ridges made after ploughing
- Sowing distance is 20 to 50 cm between seeds
- Alternatively, plant seeds into soil on flat ground and 1 – 2 months after planting, earth up the plants as they grow to make ridges
- The ridges should be about 45 cm high and 60 cm wide
- Use the ridge method alongside other practices, such as crop rotation with cereals and using clean seeds from certified agro-input dealers

Scientific name(s) > ***Phytophthora drechsleri f.sp. cajani***

The recommendations in this factsheet are relevant to: Tanzania

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